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Original article:

Supratentorial cerebral arteriovenous malformations : a clinical analysis

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**Abstract:**

**Background:** Arteriovenous malformations (AVM) of the brain are congenital vascular lesions accounting for approximately 2% of all hemorrhagic strokes in young and otherwise healthy individuals. Ninety percent of all AVMs are supratentorial. The most common presentation of an AVM is intracerebral haemorrhage (ICH) and Seizures.

**Aims and objectives:** To study the patient profile, clinical presentation, radiological features of patients with supratentorial AVMs and also to study surgical outcome and complications in these patients.

**Material methods:** This was a prospective study conducted at IPGMER, Kolkata from August 2011 to December 2013. All patients with supratentorial AVMs attending Bangur Institute of Neurosciences OPD and admitting in B.I.N. Hospital wards were included, studied and analysed according the standard proforma.

**Results:** Out of 24 enrolled patients 80% were below 40 years of age presenting with intra cranial haemorrhage(59%), chronic headache(31.82%), seizures (27.27%) and focal deficit (22.73%). Most common type was Parenchymal hematoma(69%) and location in frontal, parietal and temporal region (22.5% each). 50% of AVMs were located at eloquent cortex of brain and 77.3% had superficial venous drainage. 45.5% AVMs had dominant supply from MCA. Out of these 7 patients required microsurgical intervention and rest were kept under observation. Total 4 patients died during the course and others were followed up every quarterly for one year.

**Conclusion:** The presentation of supratentorial AVMs in young population is complex and treatment is highly individualized. Imaging for AVMs should be considered in patients presenting with chronic headache and seizures , so that early recognition of AVM and intervention can be done.

**Key words:** Arteriovenous malformations , Supratentorial , Spetzler and Martin Grading